Effects of drought in summer 2018 on Heavy Soils Farms

The very dry weather through June and July had effects on all farms throughout the country. Did those farming on heavier soils fare out better than their counterparts on drier soils? The famers participating in the Heavy Soils Programme were all visited during the last two weeks of August with individual findings shown below. To summarise all HSP farms were affected by the dry period which resulted in reduced grass growth rates. This was compensated by concentrate supplementation and in some cases silage supplementation. All farms maintained milk output and are reasonably confident that they have adequate winter feed.

Stradone, Cavan.

The main effect of drought on this Cavan farm was increased concentrate usage to compensate for reduced grass growth; two paddocks earmarked for second cut silage were grazed for one week. The dry weather offered opportunities to carry out drainage works and install roadways, re-seed and fence heifer rearing out-block.

- 2 paddocks- cover of 3500 (second cut silage ground) 14 grazing's
- Growth rate dropped to 20kgs grass dry matter/day.
- Growth back up to 70kgs/day (01/08/18)
- Fed 6kg/cow/day of concentrate through drought- plan to reduce to 2kg /day.
- No silage fed
- Drainage and reseeding works carried out
- Pdk15- gravel moles installed
- Heifer out block- some drainage, power harrowed and reseeded, roads and fencing installed.
- Confident that with decent autumn there will be enough winter feed.

Crossmolina, Co Mayo

There was no effect of drought on this relatively lightly stocked beef farm. Rainfall levels were higher than south of country which ensured adequate grass growth with surpluses harvested. Main drains around home farm were all cleaned.

- Good grazing year
- Adequate grass supply with surpluses taken out
- Quality silage made
- Drainage work done- 1500 meters of boundary drains cleaned (42 acres serviced).

Castleisland, Kerry

After a difficult spring the farm recovered well. The long dry spell reduced growth rates and concentrate levels were increased from 2 to 6 kg /cow /day for a six week period. As growth rates continued to decline (lowest growth rate was 22 kg DM/day) round bale silage was introduced and 40 bales in total were fed. A further knock on effect of drought is reduced yield in second cut silage, hay was purchased and a third cut of silage is planned.

. A major farm infrastructure job was undertaken recently with extensive new farm roadway and pathways were installed. To complement this new layout a new water system is being installed as well.

- Meal 6kg/cow/day for duration of drought
- 40 bales round bale silage fed
- Lighter second cut silage yield
- Bought hay
- 22 kg grass dry matter per day lowest yield

Kiskeam, Co. Cork

Difficult spring had a big effect on this farm early in the year, milk yields during this period dropped by 2 litres per cow and never recovered. Fine weather was welcome but as it started to affect grass supply, meal feeding was increased from 2kg/cow/day to 6kg/cow/day. This was an additional 12.5 tonnes in total @€245/tonne = €3062. In addition 8 acres of second cut silage ground was grazed.

- Concentrate feed increased from 2kg/cow/day to 6kg/cow/day. Year to date 700kg/cow fed.
- 8 acres of second cut silage grazed
- Winter feed supply on target as an additional 10 acres was purchased for first cut.
- Plans to upgrade existing farm roadways and install some new roads.
- Replacement stock on outside farm unaffected by drought.

Doonbeg, Co. Clare

Overall on this west Clare farm it was a good summer, while grass supply was tight at times, rain came at right time to ensure grass growth did not drop below 39 kg grass dry matter/day.

- Concentrate feed was increased from 2.8kg/cow/day to 4.8kg/cow/day for six weeks to ease pressure on grazing rotation.
- Winter feed supplies are ok for a six month winter subject to normal grass growth from now to end of grazing season.
- Grass growth did not drop below 39kg/cow/day.
- 10.5 acres of land on milking platform was drained and re-seeded in ideal conditions.

Rossmore, Co. Tipperary

The main effect of the drought on this farm was in increased concentrate usage. Concentrate was increased from 2kg/cow/day to 6kg/cow/day for 7 weeks. Round bale silage at a rate of 3 bales per day was fed for two weeks (52 bales). In late 2017 an additional 30 acres was purchased, this land which is now part of the milking platform was in need of extensive re-clamination, drainage and re-seeding, all this work was carried out this summer in ideal conditions, the new grasses have now germinated.

- Concentrate feed increased from 2kg/cow/day to 6kg/cow/day.
- Round bale silage supplemented diet for 2 weeks. 52 bales used.
- Growth rates did not drop below 35kg dry matter per day.
- Milk supply maintained.
- Shortcomings in water supply with inadequate pipe size exposed in some areas of farm.

- 30 acres of purchased land cleared of scrub, drained and re-seeded. Dry weather was a huge bonus for this work.

Swanscross, Co. Monaghan.

The dry summer suited this Monaghan farm. Grass growth was consistent and rain came at key times to ensure grass supply. The week before rains grass growth had slowed down a lot. Concentrate was fed at 4kg/cow/day for six weeks which was 2kg per day above normal. 30 units of CAN were spread after each grazing and there was good response to N.

Ballinagree, Co. Cork

This farm in mid Cork was the most severely impacted of the HSP farms by the drought. 4kg/cow/day of concentrate was fed in June, rising to 8kg/cow/day in July. As grass growth remained under pressure round bale silage was supplemented at 4kg dry matter/cow/day (total of 55 bales used @€33/bale total cost €1,815). Grass growth rates dropped to 25 kg dry matter/day. Milk yield was maintained at 28 litres/cow/day. To compensate for reduced silage stocks 30 acres have been purchased and a plan in place to sell empty cows and maybe some heifers.

Athea, Co. Limerick

There were a lot of surpluses taken on this west Limerick farm as the dry period set in, rotation length was down to 15 days so concentrate was introduced early to lengthen rotation. 6kg/cow/day was fed for four weeks and during that four week period silage was introduced at two bales per day (a total of 40 bales were fed). One hectare (paddock 7) was drained and re-seeded. Lowest growth rate recorded over the dry period was 20kg dry matter per day. Overall there is sufficient winter feed in the yard and milk supplies are slightly higher than last year.

Table 1. Grass production Tonnes/DM/Ha - HSP Farms 2018 v 2017

Farm	1st Jan – 31st August 2018	1st Jan – 31st August 2017	14th June – 24th July 2018	14th June – 24th July 2017
Doonbeg	8.54	9.61	1.80	3.10
Athea	8.08	8.88	1.46	2.92
Castleisland	7.98	7.76	1.93	1.91
Kiskeam	5.94	6.17	1.06	1.14
Stradone	7.58	6.66	1.98	2.48
Rossmore	6.96	7.45	2.28	2.33
Swanscross	6.94	5.47	2.05	2.06
Average	**7.43**	**7.43**	**1.79**	**2.28**

Table 2. Additional feed required for drought period 14th June – 24thJuly 2018

Farm	No of Dairy Cows	Concentrate/cow kg	Silage DM/cow kg	Cost/cow €	Farm cost €
Doonbeg	112	84	0	22	2,464
Athea	105	112	76	40	4,200
Castleisland	105	168	76	55	5,775
Kiskeam	104	168	93	58	6,032
Stradone	94	168	70	56	4,136
Rossmore	112	224	93	72	8064
Swanscross	94	84	0	22	2,068
Ballinagree	131	240	84	76	9,956
Average	**107**	**156**	**62**	**50**	**5,350**